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THE  
**Journal of the Society of Arts,**  
 AND OF  
**THE INSTITUTIONS IN UNION.**

110TH SESSION.]

FRIDAY, JULY 1, 1864.

[No. 606. Vol. XII.]

**Proceedings of the Society.**

**PRESENTATION OF MEDALS AND PRIZES.**

The Presentation of the Medals and Prizes awarded during the present Session, took place at Willis's Rooms, King-street, St. James's, on Friday, the 24th inst., at 3 o'clock. His Royal Highness the Prince of Wales, President of the Society, presided.

Mr. WM. HAWES (Chairman of the Council) in opening the meeting, said it devolved upon him, in virtue of the office which he held, to introduce to them the business which had caused them on this occasion to have the honour of the presence of His Royal Highness and the pleasure of meeting so large a company of the members of the Society. They were no doubt all aware that the object of the Society, for more than a hundred years past, had been to reward, by means of medals and other tokens of honour, those who had endeavoured to advance Art, Science, and Manufactures; that for a great number of years past they had met and distributed those medals; that they had, in the words of their ancient documents, "encouraged the study of the polite arts among the higher classes of society;" and that, having performed that duty for many years, and other societies having, to a certain extent, taken their place amongst those classes, it had now fallen to their lot to endeavour to promote the same objects amongst other classes for whom it was calculated they could do as much good as they had already done in connection with the higher classes. They were aware that as regarded Art, the exhibitions of the Royal Academy took place in the rooms of the Society, until the growth of that body led to their exhibitions being held in rooms appropriated to that branch of art by the Crown; that manufacturers had received encouragement by rewards and medals given for meritorious inventions; and that they had done their best to promote the interests of commerce by collecting from all parts of the world the products of every country, and endeavouring to introduce them for the benefit of the manufacturing districts of the country, and to the advantage of the whole world. In every branch, whether of Art, Science, or Manufactures, some distinguished individual would this day be brought before them to receive the medals and prizes of the Society; and he was quite sure it would afford as much pleasure to the members present to take part in these proceedings as it did to the Council to award medals and prizes to so many distinguished individuals, who not only did honour to the Society but to the country. With these brief remarks, he would now ask His Grace the Archbishop of York to introduce the first prizes on the list, viz., the Educational Prizes awarded during the past year.

The Archbishop of York said, in the unavoidable absence of Earl Granville he had been called upon suddenly to introduce the first set of prizes to be distributed at this meeting. Some years ago this Society undertook, for the members of Mechanics' and similar

Institutions, a work which was performed for another class by the universities—the work of encouraging them in the acquirement of knowledge, by holding periodical examinations and awarding certificates and prizes. He had had the honour of acting as an examiner to this Society for some years, indeed as long as his leisure permitted. He had also had some experience in the middle-class examinations of the University as well as in university examinations generally, and he was therefore in a position to say—and he ought not to forbear to say it—that the work done by the candidates in connection with these Institutions was equal in its quality to the work done by any other class of students whatever. He thought, in point of precision of thought and excellence of language, the papers he had looked over left hardly anything to be desired. This undertaking on the part of the Society commenced several years ago. The number of candidates the first year was only 52; the number last year had been upwards of 1,000; which was sufficient to show that this Society had supplied an important want. It was to be remarked that the candidates who would come before His Royal Highness to receive the prizes had obtained them not as against the candidates of one locality alone, but against all comers from all parts of the kingdom, and thus the honour was the greater. One special prize had been given by his Royal Highness the Prince Consort. That was a name never to be mentioned without deep respect in any meeting of Englishmen at any time, but especially in the Society of Arts, where it could not but move the deepest feelings of gratitude, because it was a matter of fact that the Society mainly owed its present state of activity to the fostering care and unvarying interest of his Royal Highness. This prize was awarded to the candidate who in the present and three preceding years had obtained the largest number of first-class certificates, and by reference to the list they would see that the person to whom this high honour was awarded this year had well deserved it, judging by the number of subjects in which he had taken the leading place. He himself examined that candidate's papers in 1861, and he then formed a very favourable impression of them. He should best consult the convenience of his Royal Highness, and that of the meeting at large, if he stopped at this point; and having stated these few facts in connection with the examinations, he now begged to introduce to the notice of his Royal Highness the successful competitors for the prizes.

HIS ROYAL HIGHNESS then distributed the educational prizes (first and second), together with the Prince Consort's prize of twenty-five guineas, in accordance with the list which has already appeared in the *Journal*.\*

The Marquis of SALISBURY said he had been desired to introduce to the notice of His Royal Highness the successful competitor in the designs for Dwellings for the Labouring Classes. He wished this duty had fallen into abler hands. It was a subject which had occupied the attention of the public lately to a considerable degree. Many attempts had been made to accommodate the dwell-

ings of the poorer classes to their wants, both as to decency and comfort, but he was sorry to say they had not yet been able to supply the labourer with a suitable residence at a rent which came within his means. He hoped, however, the interest that had been taken in the subject by the Prince Consort, as well as by his Royal Highness now in the chair, would tend to direct the attention of all to so interesting a department of our social economy. The number of competitors for this premium was no less than 107, and out of that number one had been selected as deserving of the prize, and it would be regarded as no small merit to be the successful candidate in so very large a competition. This was a subject on which much might be said on behalf of the public and the labouring classes, but he would confine himself to these few remarks in introducing to the notice of His Royal Highness Mr. John Birch.

HIS ROYAL HIGHNESS then presented to Mr. Birch Mr. J. Bailey Denton's Premium of £25, and the Society's Silver Medal for the Best Design for a Labourer's Cottage.\*

Mr. W. H. BODKIN (Assistant Judge) then rose and said, the next subject in the order of proceedings was one which would be considered of great interest. Amongst the many objects of utility entrusted to the care and management of this Society there was a bequest which enabled them every fifth year to award (in conjunction with the College of Physicians) the splendid silver cup they saw before them, worth £100, "with gold coin in it to the same amount," for the best treatise upon Jurisprudence. Many learned works came under the consideration of the judges, and after giving to all the degree of attention which each merited, the prize was unhesitatingly awarded to Henry Sumner Maine, LL.D., late Professor of Civil Law in the University of Cambridge, and now a member of the Supreme Council of India, for his work on "Ancient Law."† That treatise, a copy of which would, with his Royal Highness's permission, be forwarded to him, would, if he condescended to peruse it, satisfy his Royal Highness that the author of it had shown great talent and great research, and produced a work, not merely valuable to the professional jurist, but to all who took an interest in the progressive civilisation of mankind. The Council would have been glad to have had the pleasure of seeing Mr. Maine present to receive the cup from the hands of his Royal Highness; but considering the high position which Mr. Maine had recently been called to fill, his absence on this occasion would not perhaps be considered a matter of regret. As a member of the Supreme Council of India, he was now giving the benefit of his acquirements and talents in the government of that mighty empire, which, under the beneficent and undivided sway of Queen Victoria, was advancing with such marvellous strides, not merely in material prosperity, but in all those arts and sciences which tend to make a people happy and a nation great. Mr. Maine was represented on that occasion by his brother, who would receive on his behalf the reward that had been so properly bestowed; and whatever real gratification the award of that prize would afford to the author of the treatise or his representative, no doubt could be entertained that both would consider it of enhanced value from the honoured medium of its presentation.

HIS ROYAL HIGHNESS then presented the prize to the Rev. Lewin G. Maine, as the representative of his brother.

Sir FRANK CROSSLEY, M.P., said he had been requested by the Council to say a few words in introducing to his Royal Highness the successful competitors for the Art Workmanship prizes; and it might be necessary for him to state, to those who were not informed on this subject, that the Council of the Society had thought it wise to prescribe the design from which all the competitors in

each particular class should work, instead of allowing each competitor to select his own design. They had also, as the Archbishop of York had stated with regard to another class of candidates, to compete, not merely with those from any single town or district, but with all comers throughout the kingdom. The works sent in for competition were submitted to judges of the highest standing and the strictest impartiality, and there was doubtless great credit due to the successful competitors. That lamented Prince whose name could never be mentioned without feelings of the deepest regret—the Prince Consort—had taken the deepest interest in the progress of Art Workmanship, and there was no doubt that the institution of these prizes would do much to raise this country to that high position in industrial art which it ought to occupy from its great wealth and intelligence; for after all it was useless to produce good designs if they did not find artisans in this country who had the ability, the zeal, and the perseverance to carry them out with effect. It depended upon the style of workmanship in a production whether it was a thing to be admired as long as it endured, or was merely a showy object, causing pain to men of true taste when closely examined. He rejoiced to find that the Prince Consort had left a noble son who was treading in his footsteps. His Royal Highness showed this by his presence here to-day; it was also proved by his presence amongst the hives of industry in the manufacturing districts; and he (Sir F. Crossley) must say he was much delighted when, last year, he had the honour of showing his Royal Highness over the works with which he was connected, to find that whilst he entered minutely into the details of the various manufactures, almost the first thing he inquired was how it fared with the thousands of workpeople, and what wages they were able to earn? Happy were the people when their princes were concerned about the welfare of the many rather than about the interests of the few. They saw the Scripture well nigh fulfilled that day, "Seest thou a man diligent in his business? he shall stand before kings: he shall not stand before mean men."

The prizes for Art-Workmanship were then distributed by his Royal Highness, in accordance with the list already published in the *Journal*.\*

Mr. M. H. MARSH, M.P., said he had been selected to introduce the next subject for which medals were awarded by the Society, from having been intimately connected with the colonies. They were all aware of the great commercial value of gutta percha. It was a material which had been introduced only within the last few years, and it was now of most extensive application. It was used for objects of great variety of character, from the halfpenny toy of the child to the great electric telegraph which could waft a sigh from India to the Pole, defying space and time, and which was one of the greatest discoveries of a great age, when mind triumphed over matter in a way that no previous age had witnessed. Gutta-percha was a natural production; its sources of supply were limited; the trees from which it was derived were continually cut down, and the supply must ultimately fail, and hence the importance of discovering some efficient substitute. The eminent colonists to whom the Society's medal was awarded had been fortunate, the one in discovering and the other in introducing into commerce a gum of another kind, which could be used as a substitute for gutta-percha, and he was sure the meeting would agree that they were eminently entitled to the distinction which was now conferred upon them. A medal had also been awarded to Mr. J. C. Morton, the eminent authority in agricultural matters, for his meritorious paper "On Agricultural Progress," read before the Society last session.

HIS ROYAL HIGHNESS then presented the silver medals awarded to Dr. Van Holst, of Berbec, for the importation into this country, through Mr. Walker (Colonial Se-

\* Vol. XII. p. 401. † Vol. XII. p. 145.

\* Vol. XII. p. 75.

cretary of British Guiana), of specimens of "Balata," a gum from the *Sapota Mulleri*, as a substitute for Gutta Percha; and to Sir William Holmes (of British Guiana), for the introduction of this material into the commerce of this country; as well as one to Mr. John Chalmers Morton, for his Paper "On Agricultural Progress, its Helps and Hindrances." The first two medals were received by Mr. Winkworth on behalf of the above-named gentlemen.

Mr. WILLIAM HAWES said—In the few observations he made at the opening of the meeting he had stated that prizes would be given to representatives of Arts, Manufactures, and Commerce; but the medal he had now to refer to was to be presented to a gentleman who had done in a particular way more to promote Arts, Manufactures, and Commerce—all three combined—than any other individual, he believed he might say, of the present day. The medal he had to place in the hands of His Royal Highness was one specially dedicated by this Society to commemorate the great benefits it received from the services and from the support of the Prince Consort, and was the first of the series. It was the gold medal of the Society, executed by Wyon, and he believed was the best representation of the Prince Consort which had to this time been executed. In every way it was the desire of the Society to confer this medal only in recognition of very high merit. The Council of the Society had therefore selected Sir Rowland Hill, the originator of Postal Reform, to be the first upon whom they would confer the distinction of presenting, through the hands of His Royal Highness, the Albert Gold Medal. (This announcement was received with enthusiastic applause throughout the meeting.) It was a remarkable circumstance connected with postal reform that for the last 200 years every reform, every step in the direction of progress which had been made, had been originated and carried out by individuals emanating from the mercantile and trading classes of society, who had forced upon the authorities that attention to the interests of commerce by which alone it could prosper. If they went back two hundred years they found individuals contracting to carry letters by relays of post horses. In 1683 an upholsterer started a penny post in London, and a quaker at Exeter contracted for the conveyance of letters between the West of England and Chester, to meet the Irish mail. Mr. Robert Palmer, a citizen of London, was the first great contractor for the mail service, as it existed before the construction of railways. Then they came to the period which most present recollected, when the rates of postage were high, and but few facilities for correspondence existed, and when Sir Rowland Hill propounded that most extraordinary scheme of postal reform which had not only received the unanimous sanction of this country but had since been adopted by nearly every civilised country in the world. The great features of Sir Rowland Hill's plan were these—equal rate of postage—the penny—the prepayment of that penny—and the charge by weight instead of what was called the double and treble letter. Those three propositions being established in the public mind—those three principles being admitted, every other portion of postal reform followed as a consequence of their adoption. Sir Rowland Hill was undoubtedly the first to originate them; and so clearly did he at first enunciate his plan and explain its details that no man had been found to dispute that to Sir Rowland Hill, and to no other person, belonged the sole honour of this great social and political reform. In order to give an adequate and clear idea of the importance of this great measure, he might state that while the number of letters which passed through the Post Office, when this reform was introduced was about 75,000,000 per annum, it had risen in the course of a few years to nearly 700,000,000; that the number of miles travelled by post daily had risen from 3,000 to nearly 16,000; that the weight of letters had increased from 700 tons to nearly 5,000; that by the book-post, which only dated

from the year 1848, when only 750,000 packets passed through the post, there were now conveyed the enormous number of 12,000,000; and that grand completion of the system, the Money Order Office, had increased from £313,000 to £16,500,000 last year. They might truly say that, whilst they boasted that in this country laws were made for all classes—for the rich and poor alike—never, until Sir Rowland Hill's time, was the post-office the post-office of the poor. It was now essentially the post-office of the people, who could maintain their family ties and their family associations, and by means of photography could be in possession of family likenesses at a cost so trifling that every member of the community could enjoy them. Nothing, then, but the greatest amount of good could arise from such facilities being afforded for the social, moral, and industrial improvement of these classes. He might further mention, as a remarkable fact, that the number of letters now passing through one of our large cities—Manchester—was more than equal to the whole of the postal correspondence of the great empire of Russia. It would be difficult to illustrate the effect of the system more strikingly than by the fact that, in a district with less than one million of inhabitants there was a greater amount of correspondence than existed amongst the millions of people who inhabited that great empire. But there was another remarkable feature connected with it. Not only had this system been adopted by Great Britain, but nearly every civilized country had copied it. They found that in no fewer than 34 British colonies the penny postage system had been introduced, and besides that there were 45 foreign countries and states in which not only was the postage a penny, but the prepayment by stamps—a most important part of the system—was also introduced. He had begun by stating that in the prizes they had already awarded, the Society testified its anxiety to promote in the best possible manner the interests of Arts, Manufactures, and Commerce. He wished them to receive Sir Rowland Hill as representing in his person Arts, Manufacturers, and Commerce. He wished them to receive him on this occasion as one of the great benefactors of the age—as one to whom the Society's Albert Gold Medal, which was to be awarded to those only who had in the highest degree promoted Arts, Manufactures, and Commerce, was most appropriately adjudged. He wished them also to show that in the opinion of all present he had done his country service—that he had earned an imperishable name, and that he would hereafter be looked upon as one of the greatest civilizers of the age. All present, he was sure, would with him desire that the great power Sir Rowland Hill had called into being would be used for no other purposes than those its founder contemplated, viz., as the great promoter of peace among mankind, and as tending to bind the interests of this country, more closely than could be accomplished by any other means, with those of every other country in the civilized world.

HIS ROYAL HIGHNESS, in presenting the Gold Albert Medal to Sir Rowland Hill, expressed the great gratification it afforded him to be the medium of conveying so valuable a recognition of the services of so distinguished a man.

SIR ROWLAND HILL (who was loudly cheered on rising) said he must ask leave to express his thanks for the high honour this day conferred upon him. The award of the medal of this important and influential Society would, under any circumstances, confer high distinction and excite the most grateful feelings; but that distinction was increased, and those feelings were strengthened by the consideration that, as had just been stated to them, the medal thus awarded him was founded in memory of that great and good Prince, whose loss the nation so deeply deplored; and his gratification was enhanced by the fact that the medal had been so graciously presented by His Royal Highness. This medal, precious to himself, would also be treasured by his family, and in their name, as well as in his own, he begged to tender to

His Royal Highness, to the Council, and to the Society at large, his most respectful and hearty thanks.

Lord HENRY LENNOX, M.P., said the grateful task had been confided to him of proposing a vote of thanks to His Royal Highness for the honour he had conferred upon them in presiding over these proceedings. The presence of His Royal Highness amongst them that day, in the first place showed to the Society of Arts that our gracious Queen preserved that interest in the proceedings of the Society which had been so often alluded to as having been felt by her revered husband, the Prince Consort; and, secondly, it was an earnest to the country that His Royal Highness now in the chair was anxious to tread in the steps of his father, and to throw the shield of his powerful name and influence over all societies like this, whose only object was to promote the happiness and welfare of mankind. This occasion was specially interesting from the fact that this was the first time His Royal Highness had occupied the chair of the Society which he had honoured by becoming its President; and he (Lord H. Lennox) was sure he expressed the wish of the members at large when he said he hoped this was only the first of many succeeding occasions on which the Society might have the honour of being presided over by His Royal Highness the Prince of Wales. In the name of the Society of Arts, and by the unanimity of their vote, let them assure His Royal Highness that by this and other similar acts he was winning for himself a high place in the affections of the people of this country, which had been so warmly and justly bestowed upon his illustrious father and upon our beloved Queen.

HIS ROYAL HIGHNESS the President (who on rising was loudly cheered) said—My lords, ladies, and gentlemen,—It would be unbecoming in me, after what has just fallen from my noble friend, not to say a few words to express my thanks, and I do thank you most sincerely for having invited me on this occasion to present these medals and prizes. When I was first asked to accept the office of President of this Society I felt great doubt about doing so, feeling that owing to my age, I must appear to be an unworthy successor of my revered father, one of whose great objects in life was the promotion of science and the arts. Still, after the kind manner in which I have been received here to-day, I can only say it has afforded me great gratification to have taken part in your proceedings, and I shall be glad to do so again, whenever I am able, on occasions of this kind, in fact on all occasions when I feel that I may be doing service to the country. I will only say further that I cordially wish prosperity to all those to whom I have had the pleasure of presenting these prizes.

HIS ROYAL HIGHNESS then retired, and the proceedings terminated.

#### ANNUAL GENERAL MEETING.

The Annual General Meeting for receiving the Report from the Council, and the Treasurer's Statement of Receipts, Payments, and Expenditure during the past year, and also for the Election of Officers, was held, in accordance with the Bye-laws, on Wednesday, the 29th inst., at 4 p.m. WILLIAM HAWES, Esq., Chairman of the Council, presided.

The Secretary having read the notice convening the Meeting, the minutes of the last

Annual General Meeting, and of the subsequent Special General Meetings, were read and signed.

The Chairman then nominated Mr. Philip Palmer and Mr. B. Waterhouse Hawkins as Scrutineers, and declared the ballot open.

The Secretary then read the

#### ANNUAL REPORT OF THE COUNCIL.

In compliance with the bye-laws of the Society, the Council now lay before the members in annual meeting assembled, a statement of their proceedings since the last meeting.

#### PRESIDENT.

In the Address of the Chairman of the Council at the opening of the Session in November last, it was announced that His Royal Highness the Prince of Wales had been elected President of the Society, and it gives the Council great pleasure now to record, that His Royal Highness was graciously pleased to inaugurate his Presidency by presiding at the General Meeting of the Society on Friday last, and presenting the Prizes and Medals which had been awarded in the course of the past year.

#### CANTOR LECTURES.

The Cantor Lectures, also referred to in the Chairman's Address, have proved a very great success, such as fully to justify the Council in the course they adopted; and they strongly recommend to the consideration of their successors the propriety of continuing these lectures next season. The subjects selected for the Courses this season were:—

"The Operation of the Present Laws of Naval Warfare on International Commerce." By G. W. HASTINGS, Esq., Barrister-at-Law.

"Fine Arts Applied to Industry." By W. BURGESS, Esq.

"Chemistry Applied to the Arts." By Dr. F. CRACE CALVERT, F.R.S.

The greatest interest was evinced by the members; indeed, on many evenings the room was not large enough to contain those applying for admission.

#### ALTERATIONS, REPAIRS, AND LIBRARY.

On the renewal of the Society's lease the Council took into consideration how they could adapt the house to the better accommodation of the increased number of members, and they had plans and estimates prepared, which, as soon as the meetings of the Society were over, were put into execution. The meeting-room of the Society has been enlarged by rendering the ante-room available, which, with the re-arrangement of the seating, gives accommodation for a larger audience, whilst the ventilation is greatly improved, adding materially to the comfort of those attending the meetings. The crowded meetings which have taken place on the occasion of the Cantor lectures, as well as on the Wednesday evenings, have fully tested the value of the alterations, and the

results have been most satisfactory. The model-room has been converted into a library, where the Society's books have been carefully arranged for the use of the members, and the room itself rendered available as a reading-room, while at the same time arrangements for the display of the Society's models have not been omitted. The Council may take this opportunity of reminding the members that the library is a lending library, and that, with some necessary exceptions, all the books are available for borrowing by the members. A catalogue in MS. has been prepared for consultation by members, which at present it is not intended to print, it being thought better not to incur that expense until the library has been rendered more complete by the purchase and addition of other works. From the income of the Cantor bequest, the greater part of which it is intended to apply to the payment of the Cantor Lectures, the Council have apportioned £50 per annum, to the purchase of new books, on subjects connected with, or illustrative of, Arts, Manufactures, and Commerce.

#### THE BARRY PICTURES.

Under the advice of Mr. Richard Redgrave, R.A., who examined and reported on the condition of these pictures, they have been lined and put upon new and stronger frames and stretchers. This work, requiring great skill and care, has been most successfully accomplished by Mr. Merritt, and the result reflects great credit upon that gentleman. The thanks of the members are due to Mr. Redgrave, who, at no expense to the Society, gave them the benefit of his knowledge, and much valuable time in examining and reporting on the condition of the pictures, as well as in superintending the work of repair in the hands of Mr. Merritt.

#### PRIZES.

During the session the prizes offered by the Society to Art-workmen have been awarded, the Judges being Richard Redgrave, R.A., M. Digby Wyatt, and John Webb, Esqrs. There were seventy competitors, and the prizes were awarded in nearly every division of the subject. The judges expressed great satisfaction at the manner in which the Society's offer of prizes had been responded to by the workmen, and in several cases the quality and character of the works sent in was so meritorious, that extra prizes were recommended, and the Council had great pleasure in following the recommendation of the judges. The success which has attended this first competition has induced the Council to draw up a more extended list of subjects, and to offer prizes for a second competition, amounting to upwards of £500; the works to be sent in by the end of November of the present year.

The Albert gold medal, established by the Society as a memorial of the Prince Consort, to be bestowed for distinguished merit in promoting Arts, Manufactures, or Commerce, has been awarded for the first time, and Sir Rowland Hill, K.C.B., receives it in recognition of his great services to Arts, Manufactures, and Commerce, in the creation of the Penny Postage and for his other reforms in the postal system of this country, the benefits of which have, however, not been confined to this country, but have extended over the civilised world.

One only of the prizes offered through the Society by R. Bailey Denton, Esq., for designs for Labourers' Cottages, has been awarded—namely, £25 and the Society's Medal—to Mr. John Birch. The object of the prize was a Labourer's Cottage, to consist of a living-room, scullery, and three bedrooms, of a suitable character, to be built at a cost, with profit to the builder, not exceeding one hundred pounds each. By the conditions of the competition the Judges were to be, an architect, a land agent, and a builder, and those duties were undertaken respectively by C. F. Hayward, Esq., John Clutton, Esq., and George Dines, Esq., to whom the Society is greatly indebted for undertaking the responsibility of a work involving great labour and the expenditure of much valuable time. There were 107 competitors sending in 134 designs. The judges report that after careful and minute examination of each design and specification, there was not one which strictly complied with the condition as to price; but they nevertheless considered one of the designs to have so much merit that although if the conditions were strictly adhered to, it could not claim the prize, they strongly recommended that the prize should be given to the author of that design. On communicating this recommendation to Mr. Bailey Denton that gentleman at once concurred in this view, and the Council awarded the prize and the medal to Mr. John Birch.

The Council refer the members to the report of these gentlemen, printed at page 401 of the present volume of the *Journal*.

The Swiney Prize, given by the will of the late Dr. Swiney, a silver cup of the value of £100, with gold coin in it to the same amount, to the author of the best published treatise on Jurisprudence, to be awarded on every fifth anniversary of Dr. Swiney's death, has been this year awarded to Henry Sumner Maine, Esq., LL.D., late Professor of Civil Law in the University of Cambridge, and now Member of the Supreme Council of India, in respect of his work entitled "Ancient Law."

The Council have had brought under their consideration a material, the product of a tree (the *Sapota Mulleri*) in British Guiana, termed *Balata*, which is of the nature of gutta percha,

and may be used with, or as a substitute for, that material. Some small specimens, collected by Dr. Van Holst, in British Guiana, were originally brought before the Society, in 1860, by Mr. William Walker, the Colonial Secretary for that colony, and subsequently Sir W. Holmes, Commissioner of that colony at the Exhibition of 1862, has exerted himself to procure the material and prepare it in the country for export in considerable quantities as a matter of commerce. The qualities of the material have been carefully examined and tested by manufacturers, and the Council have thought it right to mark their sense of the importance of the labours of the above-named gentlemen by awarding to each of them the Society's Silver Medal—to Dr. Van Holst for the discovery, in British Guiana, and the first importation of the specimens, and to Sir W. Holmes for his exertions in introducing the material into the commerce of this country. In the *Journals* of the 24th of August, 1860, and 4th of March, 1864, will be found Mr. Walker's and Sir W. Holmes's communications.

The Council have awarded to John Chalmers Morton, Esq., the Society's Medal for his paper read before the Society, "On Agricultural Progress; its Helps and its Hindrances."

The Prize of £70 offered, through the Society, by Sir Walter Trevelyan, for the discovery of a process for preserving fresh meat better than by any method hitherto employed, applicable to the preservation of meat in countries where it is now almost valueless, so as to render it an article of commerce and available for stores on ship-board, has not been awarded. Several ingenious processes for the purpose have come before the Council, one of which was described in a paper read before the Society at one of its evening meetings, and the method adopted was shown practically before the members in illustration of the paper. In processes of this character it is impossible to arrive at a just conclusion as to their merits without an actual trial over a lengthened period, and as specimens of meat preserved by these various methods are being put to the test of experiment both in the English and French Navies, it has been thought right to postpone giving any judgment on their merits until the results of these trials shall be known.

#### "JOURNAL."

At the commencement of the Session the Council took into consideration how far any improvement could be introduced into the *Journal*, and, under the direction of a committee, appointed specially for this purpose, certain changes in the form and matter of the *Journal* have been introduced, which it is believed have rendered it more interesting to the members. It must, however, be always borne in mind that the *Journal* is not a newspaper, but a medium of

recording the operations of the Society, the papers read at the evening meetings, and the discussions which follow; in fact, what in other Societies is comprehended under the term "Transactions." These topics must form the principal subject matter of the *Journal*, and all other matter must be subordinate to it, and must vary in amount according as the transactions proper admit of space for its insertion. This supplementary matter has been divided, under the heads of Arts, Manufactures, Commerce, and the Colonies, the object being to give to the members as much information and news under these divisions as space will permit. To these have been added obituaries of members and other individuals worthy of note, whose lives have been identified with any of the objects for the promotion of which the Society has been established. There is also space devoted to correspondence. The Council would suggest to the members how much it would add to the interest and value of the *Journal* if members would take the opportunity of sending to the editor such information in these respective departments as must be at their command. Such communications need not necessarily be lengthened notices; short and condensed notes would be acceptable when it might not be convenient to send long communications.

#### DWELLINGS FOR THE LABOURING CLASSES.

The offer of prizes by Mr. J. Bailey Denton, for designs for a labourer's cottage, to be built for a sum not to exceed £100, as well as the discussion on Mr. Morton's paper, and the statistics of model dwellings collected by the Society's Committee, under the chairmanship of Mr. Twining, and published at the expense of that gentleman, drew the attention of the Council to the subject generally of dwellings for the labouring classes, and it was thought desirable to hold a Conference upon it, to which all who took an interest in the subject should be invited, and, accordingly, two days in the month of May were devoted to a discussion of the subject in all its bearings. The Conference was well attended, and resolutions of a practical and useful character were passed. The particulars of the Conference have already appeared in the *Journal*. It is hoped that the new Council will take up the matter and endeavour to carry into effect, as far as possible, the spirit of the resolutions then passed.

#### SOCIETY'S MEMORIAL OF THE PRINCE CONSORT.

The bust of His Royal Highness the Prince Consort, by Mr. Theed, has been placed in the Society's Rooms, and the Pictures undertaken by Messrs. Cope, R.A., and J. C. Horsley, A.R.A., are in the course of execution.

#### INSTITUTIONS IN UNION.

The proceedings in this branch of the Society's

operations are detailed in the Secretary's Report read at the Conference of the Institutions held on the 16th instant.

#### CONVERSAZIONE.

A *Conversazione* took place at the South Kensington Museum on Thursday, the 16th instant, when upwards of 3,300 members of the Society and their friends were present.

#### FINANCE.

In the last *Journal* is printed, as required by the bye-laws, the accounts of the Society for the year ending the 31st May, 1864. On these the Council have only to observe that the large items of expenditure have been upon the repairs and alterations in the house and on the Jury Reports of the Exhibition of 1862. It must be borne in mind that in the last two years the Society has renewed the lease of its premises at a cost of £2,360, and has had to spend in alteration, repairs, and new fittings and furniture—which had been delayed until it was settled that the lease of the premises would be renewed—a sum of £2,400, making an extraordinary expenditure of nearly £5,000, which cannot fairly be charged upon the revenue of one year only, but should be spread over the whole term of the lease. Under these circumstances, the Council feel that they may congratulate the Society on the prosperous condition of its finances.

Mr. WINKWORTH moved the adoption of the report, which was seconded by Professor TENNANT.

Mr. PHILIP WRIGHT wished to make a few remarks upon the accounts. He had done so on the occasion of the last meeting, when it was acknowledged by the gentleman now in the chair that the spirit in which his observations were made was fair and courteous, and he trusted it would be the same on the present occasion. He admitted there was some improvement in the form of the accounts over that of last year. They had now a statement of what were Trust Funds, and so far there was an improvement, but in some other respects he thought the accounts were rather less clear than before. In the Receipts and Payments the accounts last year were divided into establishment expenditure, general expenditure and special expenditure; but having, on the last occasion, expressed his surprise at the different heads under which the auditors had placed various items of the expenditure, he found in the present accounts the heads were left out altogether. It would be observed that in some cases the Society had to deal with monies of which they had the sole control as regarded both principal and interest; in other cases they had control over the interest only; in other instances the application of the interest was specified; and in other cases again they acted simply as bankers for other parties. Now, in the receipts and payments all these things were huddled together, which he submitted ought to be kept distinct. The Swiney bequest was stated in the present accounts as £4,500 in Consols; the last time any notice was taken of that bequest it stood as £1,333 6s. 8d. The gentleman who acted as treasurer now was an auditor last time, but that item had jumped from £1,333 6s. 8d. to £4,500 without any remark or foot-note to explain how it was so. On calling at the office he was informed that £4,500 was the amount of the Swiney bequest, and that every five years the sum of £200 was appropriated in the

special manner indicated by the testator. With that exception it appeared the Society had the entire control of the interest arising from that bequest. With respect to John Stock's bequest of £100, it seemed that for a very long time past the interest of that money had been applied to the general purposes of the Society, and it was only lately that the special objects for which that bequest was made had come to light. The Fothergill trust was pretty much in the same condition, though he believed the object to which that money was devoted was the establishment of a medal for the best preservations against destruction by fire. He had never heard of that medal being awarded. The Cantor bequest came into the hands of the Society two years ago, and he thought it would be found they owed to that fund an amount of about £300, which he presumed the council would ultimately replace to that account. It would seem that this year a portion of the interest of that sum had been applied to the specific purposes for which it was intended, and that besides the lectures, £50 had been expended for books added to the library. He did not think it right to include that in the general accounts. The interest arising from the trust funds ought to be distinctly stated, and the general fund and the interest applicable to it ought to be stated with equal distinctness. The treasurer and auditors, in their anxiety to put the accounts in a condensed form, had rendered them extremely confused. In the case of the South Australian Institute, for whom the Society acted as bankers, he found in the statement of liabilities and assets as regarded that Institute, a sum of £12 4s. 8d. against the Society; last year it was about £36; whereas by the general receipts and payments he found that the Society had received on account of that institute £350, and had expended on the same account £429 3s., from which he gathered that the institute was indebted to the Society, whereas the contrary appeared to be the case. Then again there appeared to be a liability of £26 5s. on account of the Prince Consort's Prize, which he confessed he could not understand.

The SECRETARY explained that the amount received last year was for the previous year, but the amount of the prize had not been received for the present year.

Mr. WRIGHT added—Having touched upon the form of the accounts, he could not congratulate the Society upon its financial position, inasmuch as the accounts showed that at the present moment the Society was bankrupt; an honourable bankruptcy, it was true, for if they were called upon at once to discharge all their liabilities they could do so, but it must be by the sale of their property. They had spent in round numbers £5,000 for renewal of the lease and repairs, whereas the value was set down at £3,000; so that if in the last two years they had sunk £2,000 on that account, he did not see how in the course of the lease they were to get back the whole sum expended, as the report of the Council promised. He thought this showed a bad state of the funds. He would strongly urge on the treasurer and auditors in future to keep the general account quite distinct from the special and banking accounts. There was one item in the expenditure which called for some notice—that was with regard to the *Conversazione*. He thought it would have been better if, in the present state of the Society's funds, such an expenditure had not been incurred. The invitations were issued by the Council, in their own name; and as the honour of the thing reflected upon them, he thought it only reasonable that they should pay the expenses of the entertainment. Mr. Wright concluded by expressing a hope that the accounts would in future be more specifically rendered; and he suggested that the *forma* of accounts adopted by the Society for the Propagation of the Gospel, which had to do with different funds in a similar way to this Society, might be adopted with benefit.

The CHAIRMAN asked whether any other member wished to offer any remarks upon the report and accounts. After a pause, and no member rising, the Chairman said, before putting the adoption of the report, it might be considered



that some reply was due from him to the observations of Mr. Wright, and he would say at the outset, that so far from that gentleman's criticism of the accounts being unpleasant to the Council, they felt obliged to any member who brought an independent mind to bear upon the subject, with a view of suggesting any improvement as to the mode in which the financial statement should be made out. The remarks they had just listened to referred mainly to the three classes of funds with which they had to deal, and it had been urged that those funds should be separately stated in the accounts. Upon that point he would say that it was shown, under a distinct head, what the Trust Funds were, and the amount of interest received from each, but they did not show exactly the expenditure of the monies received from those trusts; but when they saw how few the items were under that head, he apprehended there was no difficulty in extracting from the accounts, as now placed before them, the way in which those funds were appropriated. In the first place, with respect to the Swiney bequest the amount was £4,500 stock, as stated; but in the former mode of arranging the accounts, which had been adopted on the recommendation of an eminent accountant in the City, £1,333 6s. 8d. was set apart as the amount which would exactly supply the interest to provide for the prize of £200, which was given every five years under the terms of the bequest. Why this should have been done, though it was done under very high authority, he (the Chairman) could not say, and he did not agree with it. The fund was charged with a certain specific sum every five years, and the remainder of the interest was applicable to the general purposes of the Society. With regard to John Stock's bequest of £100, they had had some difficulty in finding out the precise terms of it, as it dated back as far as the year 1782. The purpose of that bequest was found to be to provide a medal for the encouragement of drawing, sculpture, and architecture, and medals had been offered. This year one was offered as a premium to female artists for cameo cutting; but that offer had not been responded to. The same remark applied in a great measure to the Fothergill bequest, which was appropriated to matters connected with the preservation of life and property from fire; that prize had been offered but had not yet been awarded. With regard to the Cantor bequest, the Council had, they believed wisely, appropriated a portion to the courses of lectures which had been delivered, and which it was proposed to continue next year, and also in the expenditure of £50 in the purchase of books for the library. He thought it would be rather difficult for any one to find an exception to the manner in which these trust funds had been administered. With regard to the South Australian Institute, there was an old arrear of £40, which, being brought forward in the present accounts, made an apparent discrepancy to that amount. They were told the Society could not be congratulated on its financial position; but what were the facts? They had this year paid out of the legitimate funds of the Society £1,500 for repairs, and upwards of £1,000 for Jury Reports. It could not be denied that their property was improved to the extent of the £1500, and with respect to the jury reports, they were undertaken by the Council upon the Commissioners for the Exhibition declining the publication. It was thought of great importance that a proper record should be made of the Exhibition of 1862. The dimensions of that work had extended much beyond what was originally contemplated, but no one would deny that it was a most valuable volume, as well as a very cheap one to those who had been subscribers to it. Still there was the fact that the publication had been attended with that amount of pecuniary loss to the Society; but the Council were prepared to justify the course they had taken in having produced a work creditable to the Society and useful to the public. Thus, in the way he had stated, no less a sum than £2,500 for those exceptional matters had been paid out of the annual income, still leaving a balance

of £229, all ordinary expenses being paid. Then they were told that the state of their property must be bad, because they valued the lease at only £3,000, whilst £1,500 had been paid in repairs, and there was a further liability of £900 under that head. It had not been the wish of the Council to overstate the value of the Society's property, or they might have put it down at a higher figure. Of course, if they were obliged to dispose of their property at once, it could only be done at a disadvantage; but anyone looking fairly at the Society's financial position could not but feel satisfied with it. He (the Chairman) did not hesitate to say that the Society was financially in a flourishing position, and, judging from the interest shown in its proceedings during the last year, it was more likely that that position would be improved than deteriorated. Then, with regard to Mr. Wright's observations upon the item of £150 for the conversazione, he could only look upon them as a joke. It had been said that as the cards of invitation were issued in the name of the Council, they ought to pay the expenses. In that view he begged to differ from Mr. Wright. He ventured to think it was a most legitimate and appropriate application of the funds, and he was quite sure those gatherings of the members were a source of great pleasure and gratification to them. The general feeling was in their favour, and so long as they were supported, the Council would not hesitate to bring forward that item in the annual accounts. He repeated that the Council were indebted to Mr. Wright for calling attention to these matters. All they wished for was the strictest investigation.

Mr. J. H. MURCHISON said he could not agree with the conclusions of the chairman that the financial position of the Society was a flourishing one. The liabilities, for which funds must be found, amounted to no less than £4,318. What had they to meet that? The balance at the bankers was £299. The estimated subscriptions unpaid were £1,600; they had £1,771 Consols and £355 of India bonds. That was all they had to meet that liability unless they sold their lease and furniture. All the available assets, apart from that, including the estimate of subscriptions in arrear, left them with a deficiency of £681. He left members to judge for themselves whether that was a flourishing financial position. With reference to the conversazione, the chairman had referred to it as a small item of £150; but it would be found that during the last seven years the expenses of those entertainments had amounted in the aggregate to £1,500, or over £200 a year. In this respect he said this Society differed from many other important societies, in that these entertainments were given at the expense of the Society, instead of that of the president or the president and Council. He considered the Society ought not to be saddled with so large an expenditure for purposes which could not be considered legitimately within its objects, and it would be found that the sum expended in medals bore a small percentage upon that expended upon the conversazione. Another point he wished to bring before the meeting was the, to him, extremely objectionable mode adopted for obtaining new members to the Society. That was by means of a lithographed circular sent out in the most promiscuous manner. He had heard of instances in which the circular had been received by the same post, both by present members and the *employés* in their office. He thought such a mode of canvassing for new subscribers most improper and undignified in such a society as this. It had been said that the income of the Society was £8,000 a year. He (Mr. Murchison) could not understand on what principle that conclusion was arrived at, because he found the annual subscriptions amounted to only £5,700. He did not think the explanations of the chairman had satisfactorily disposed of the remarks which Mr. Wright had addressed to the meeting, and he hoped the manner in which the Council had endeavoured to obtain members by promiscuous circulars would be discontinued.

Mr. PHILIP PALMER remarked that a slight arithmetical calculation showed the expense of the conversazione to be one shilling a head for each of the 3,000 members of the society, and if it were known that such an entertainment as they received at South Kensington could be had for only a shilling each, it would rather tend to increase the number of members. With regard to the circular to which the last speaker had alluded, he presumed it was sent to the heads of firms and others, inviting them to become members of the Society, in doing which they alike benefited themselves, and did honour to the Society. He saw no objection to such a mode of canvassing, which was done more or less by every society of importance.

Professor TENNANT thought Mr. Murchison was labouring under a mistake with regard to the annual income of the Society. He (Professor Tennant), from the figures before him, made the income £6,754.

Mr. MURCHISON expressed his dissent.

Mr. SIMONS expressed a hope, now that the library was remodelled and placed in so excellent a reading-room, the Council would take into consideration the propriety of opening it to members one or two evenings in the week. This, he said, would be a great boon to those who had fixed occupations during the day. The *Journal* had been very much improved, but its value could be enhanced by the restoration of the table of contents in each number. With regard to the conversazione, he only knew of one or two instances in which the expenses were paid by the presidents or councils of societies.

Mr. NEWTON WILSON presumed that the Society would be recouped a considerable portion of the expenses for the Jury Reports of the Exhibition of 1862 by the sale of the copies which remained to be issued. With regard to the general accounts he considered they showed the Society to be in a very satisfactory financial position; there were exceptional items of expenditure this year which would not occur again. He expressed his entire approval of the expenditure for the conversazione, and said he should not enjoy those entertainments so well unless he knew that he individually contributed a small modicum towards the expenses. He believed there was an almost unanimous feeling amongst the members in favour of the conversazione. With regard to the invitations to join the Society, he considered such a course necessary in the interests of the Society, and it was one which was very generally adopted by other societies. He had confidence in the officers of the Society that the invitations would only be addressed to persons who it would be desirable should become members.

Mr. RAMONSON remarked upon the fact of the annually recurring criticisms of Mr. Murchison, for the purpose, as it seemed to him, of merely getting up a discussion. He had noticed this for some years past. With regard to the accounts, if the members did not approve of the auditors, they could elect other persons to that office; but they ought to have confidence in those who acted in that capacity. With regard to the conversazione, he thought no money was better spent, inasmuch as at a very small expense an entertainment was provided from which every one went away delighted, and he considered, in a social point of view, such assemblies did a great deal of good. With regard to the circulars of invitation to become members, he gave the Council and officers the highest credit for taking that course, because, in the present day, people were so absorbed in the matters of everyday life, that it was necessary to call their attention to the existence and objects of societies like this.

Mr. HARRY CHESTER thought the criticisms to which the last speaker alluded were more irksome to the members at large than to the Council in particular, because nothing gave them more pleasure than to have their actions scrutinised; but if there were no greater defects observable than those which had been brought forward to-day, he ventured to think, as a member of the Council, their proceedings had been tolerably satisfactory. With regard to the form in which the accounts should be

presented, not a word of objection was to be urged against the criticism into which the first speaker had entered; but in any other form the accounts would, no doubt, be open to an equal degree of criticism from some new quarter. He had certainly regarded the strictures that had been made upon the conversazione as a joke, but perhaps it was really regarded as a serious matter by some. He thought that such criticism as had been offered to day did the Council no harm whatever, but rather tended to excite more sympathy towards those who did their best to serve the Society, than if matters were passed over in silence. If a blot could be hit upon the Council would be only too delighted that it should be exposed. With regard to the sending out of circulars of invitation, he did not agree with Mr. Murchison. The Council, in the invitations thus sent out, did not ask anything for themselves. In all the Secretary did, as the organ of the Council, the sole motive was to promote the Encouragement of Arts, Manufactures, and Commerce, and they could safely leave the matter in the hands of their officers. The system complained of had brought them many excellent members of whom the Society had reason to be proud.

The CHAIRMAN said there were one or two points which he could not allow to pass without notice. With respect to the Society being singular in charging the conversazione to the general funds, and in sending the invitation cards in the name of the Council, he begged to say it was not the case, inasmuch as this course had been pursued, to his own knowledge, by the Horticultural, the Pharmaceutical, the Royal Botanic, and the Photographic Societies, as well as by King's College. The form of invitation in the name of the Council, was commonly adopted by all public companies and bodies—the Master and Wardens acting in the case of commercial companies, and the Lord Mayor on behalf of the corporation, &c. With regard to the opening of the library of an evening, he would promise the attention of the Council should be given to the subject. The table of contents in the *Journal*, which had been omitted in order to save space, since the alteration of the form of the first page, should be restored in the next volume. Upon the subject of the Jury Reports, he would say that the actual pecuniary loss, owing to the great extension of the work beyond the limits originally contemplated, would be about £1,000 as stated in the accounts. The Chairman then put the question, That the report be adopted, which was carried unanimously.

Mr. GEORGE BLACKIE called attention to the overcrowded state of the room at some of the evening meetings, and especially at the Cantor lectures, and suggested the propriety of only allowing members to admit one friend on each occasion, instead of two, as at present.

Mr. NEWTON WILSON proposed a vote of thanks to the chairman for the ability and urbanity with which on this and all public meetings of the Society he had presided over the proceedings; and the resolution, having been seconded by Mr. Chester (who remarked upon the arduous duties of the Chairman of Council), was carried by acclamation.

The CHAIRMAN, in acknowledging the vote of thanks, said he hoped he should never have a more difficult task than hearing with good humour such criticisms as they had heard to-day. As far as most of them were concerned, there was no difficulty whatever; and with regard to the one exception, all he would say was he had now become accustomed to it.

The ballot having remained open one hour, and the scrutineers having reported, the Chairman declared that the following members had been elected to fill the several offices. The names in *italics* are those of members who have not during the past year filled the offices to which they have been elected:—

## COUNCIL.

## PRESIDENT.

H.R.H. the Prince of Wales, K.G.

## VICE-PRESIDENTS.

Edward Akroyd.	<i>Lord Lyttelton.</i>
<i>Sir Wm. G. Armstrong.</i>	M. H. Marsh, M.P.
<i>Lord Berners.</i>	Right Hon. Sir John S.
W.H. Bodkin (Assist. Judge)	Pakington, Bart., M.P.
The Earl of Caithness.	Sir Joseph Paxton, M.P.
Harry Chester.	Sir Thomas Phillips, F.G.S.
Henry Cole, C.B.	The Marquis of Salisbury,
John Dillon.	K.G.
The Earl Granville, K.G.,	<i>The Duke of Sutherland.</i>
F.R.S.	Thomas Twining.
William Hawes.	Vice-Chancellor Sir William
Lord Henry Lennox, M.P.	Page Wood, F.R.S.

## OTHER MEMBERS OF THE COUNCIL.

<i>Professor Bentley.</i>	Chandos Wren Hoskyns.
Hon. and Rev. Samuel Best.	Samuel Redgrave.
<i>D. Robertson Blaine.</i>	<i>Sir Francis Sandford.</i>
Peter Graham.	<i>Henry Vaughan.</i>
Samuel Gregson, M.P.	<i>Geo. F. Wilson, F.R.S.</i>
Edward Hamilton.	Thomas Winkworth.

## TREASURERS.

W. B. Simpson. | *G. Dixon Longstaff, M.D.*

## AUDITORS.

*H. Reader Lach.* | *Seymour Teulon.*

## SECRETARY.

Peter Le Neve Foster, M.A.

## FINANCIAL OFFICER.

Samuel Thomas Davenport.

A vote of thanks to the Scrutineers was then passed.

At this meeting, in conformity with the provisions of the Act 3 Will. IV., cap. 4, intituled "An Act for Settling and Preserving Sir John Soane's Museum, Library, and Works of Art in Lincoln's-inn-Fields, in the County of Middlesex, for the benefit of the public, and for establishing a sufficient endowment for the due maintenance of the same," a new trustee of the Soane Museum on the part of the Society of Arts was elected, Mr. Samuel Redgrave having been unanimously chosen in the place of Sir C. Wentworth Dilke, Bart., whose term of office under the Act had expired.

At the conclusion of the General Meeting a Special Meeting was held, when the following candidates were balloted for and duly elected members of the Society:—

Annan, David, 33, High-street, Bow.  
 Barnett, Henry, 15, Halkin-street West, W.  
 Boucher, Emanuel, 12, Oxford-square, W.  
 Briggs, George Walker, 45, Wigmore-street, W.  
 Callender, William Romaine, F.S.A., Victoria-park, Manchester.  
 Campbell, Rev. William, Privy Council Office, S.W.  
 Clarke, Ebenezer, jun., 78, Cannon-street West, E.C., and Walthamstow, Essex.  
 Dobson, Thomas J., Hull.  
 Dowling, Charles Hutton, 28, Neville-terrace, Hornsey-road, N.  
 Frere, P., Regent-street, Cambridge.

Hicks, William Robert, Bodmin, Cornwall.  
 Hill, Sir Rowland. K.C.B., Hampstead, N.W.  
 Hoare, John Hatch, Barkley, Leicestershire.  
 Howell, Thomas, War Office, Pall-mall, S.W.  
 Johnston, William, 32, Buckingham-terrace, Glasgow.  
 Jones, James Valentine, 21, Cambridge-road, Islington, N.  
 Kibble, Thomas, L. 3, Albany, Piccadilly, W.  
 Locke, John, 83, Addison-road, Kensington, W.  
 Leigh-Sotheby, Mrs. S., Rozel, Lower Norwood, S.  
 Owen, Rev. Joseph Butterworth, M.A., 40, Cadogan-place, Chelsea, S.W.  
 Rabino, Joseph, 1, Dunster-court, Mincing-lane, E.C.  
 Rake, Alfred Stansfield, C.E., Passage West, near Cork.  
 Richards, Josiah, Abersychan Literary Institution, near Pontypool.  
 Robinson, Rev. Isaac Banks, Milford, Sudbury.  
 Robinson, William, Lloyd's, E.C.  
 Selwyn, Capt. Jasper, R.N., Chequers-court, Tring.  
 Shoolbred, James N., 84, Middle Abbey-street, Dublin; and 21, Parliament-street, S.W.  
 Stewart, Alexander J. R., 13, Belgrave-square, S.W.  
 Waterlow, Alderman Sydney H., Carpenters'-hall, 68, London-wall, E.C.  
 Wilson, John Guy, 109, Market-street, Manchester.  
 Wyland, Edward, 54, Piccadilly, W.

## EXHIBITION OF STAINED GLASS.

The following is from a correspondent:—

The opening of a new court or gallery at the South Kensington Museum has been marked in the history of recent art by the fact that its windows have been utilized for the display of a collection of works of art in glass-staining, an art which, more than any other, has made rapid strides in this country of late, and is now employing hundreds of hands, whereas, not many years ago, it was said, by a writer more or less qualified to give an opinion, that the whole practice of glass painting was extinct in this country, and on the continent only existent in Holland. This was literally true; but a greater truth remained unstated. This was, that although the practice of manufacturing painted glass and putting it into windows had not ceased amongst us, any more than it had on the continent, no person worthy of the name of an artist had given his attention to the practice in question; and painters, Sir J. Reynolds, for example, had been employed to produce designs for decorations of this kind, and had done so in a manner which proved their utter ignorance of the art they ventured to practice, as well as their blindness to its peculiar conditions of existence. Thanks to the exertions of critics, the manufacturers, and, what is of most importance, the public, are rapidly getting filled with a proper understanding of this matter; and although pictorial windows continue to be produced by the former, who have not the excuse proper to the latter, that they have not leisure to study the question, it is obvious, not only in the new gallery at South Kensington, but throughout the country, that pictorial windows are getting scarcer, while hypocrisy, that homage which error is said to pay to truth, is incessantly practised by persons who, unable to design under conditions they have not been trained to understand, condescend, nevertheless, to imitate the superficial appearance of decorative glass-painting in the manner of using the leads which hold the fragments together, although they are not able to depart from the transparency system so beloved by the *dilettanti* of the last century, and still affected by those upon whom the reflection of their light falls. That light is fading fast before the art-education and the progress of the people.

Among the quackeries of dilettantism—that eldest born of conceit and ignorance—is the love for pictorial glass, *i.e.*, the transparencies of a recent and even the present date. All who understand the question, and are desirous that one of the noblest of the decorative arts shall not be made

a foolish toy, must rejoice to see the large number of legitimately designed works the collection at South Kensington comprises.

All classes of workmanship are more or less completely represented in the exhibition now under consideration. Some examples, which it will be needless to particularize, do not comply with the conditions of art, which require that good drawing and good colouring should be employed to express thought and meaning; some possess good drawing without good colour, and others are fortunate in the reverse way. It is matter for congratulation that the conditions of the art are getting understood, and that so many persons recognize the absurdity of depicting objects, which are seen in nature by reflected light, in such a manner that transmitted light alone can display them to the spectator. It ought to be clear to every one that as a window forms an essential and characteristic part of a building, it should be subjected to the laws of architectonic art, and treated according to its position as an element of architecture. Architecture will not admit of imitative art, and its subordinate elements follow the same rule. A man should not build a house to look like a tree, although it might be possible to live in such a one; so that the fact of its being practicable to inhabit a house which resembles something which it is not, has not more to do with the subject than the practicability of producing a sufficiently close resemblance to a man in stained glass by means of imitative art has to do with the propriety of so employing it. To imitate is not, as it will be endeavoured to be shown a little further on, the noble end of art; in fact, it is one of its lowest aims. To enter the ranks of imitation with such an antagonist as painting *per se*—which renders atmospheric effects with almost perfect fidelity, and deals with expression with facilities unknown to other development—is surely no wise nor dignified course on the part of the professors of such an art as that of glass-staining. It is best that every art should be reserved in all its strength for the display of its own peculiar qualities, qualities whereof it is undoubted master, and under circumstances of its own choosing. To fill the windows of a building with beauty and splendid colours is the peculiar office of stained glass. It is better that it should be content with this privilege, than in the attempt to rival pictorial art in its own province of imitation, it should part with qualities proper to it, and violate the laws of art by the act.

If it is right that imitative art should not appear in architecture or its subordinates, how much more so is it that Nature herself should not be violated, so to say, by the production of false effects—effects, moreover, which by their own power add no force of expression to a picture, and, because they are imitative, render no thought more impressive? It is a false effect to paint a man as if he were transparent and had light shining through him—this is what is constantly done in what is styled pictorial or imitative glass staining. It is a false effect to represent, by means of grades of comparative transparency and opacity, those appearances of light and shade and colour which nature has chosen to produce by a means which is directly the reverse of that practice—such is the practice of pictorial glass painters. These errors are not necessities of the existence of such art as is now under examination.

Were anything to be gained by thus far transgressing the laws of art and the customs of nature, something might be urged in defence of the practice of producing imitative stained glass. Such is not the case, however. It is a low kind of pleasure that is afforded at any time by faithful imitation of natural objects in art, and when Nature herself is favourable—as in painting proper—to the result. But to produce imitations of objects contrary to her customs is nothing less than an absurdity. The noble aims of art are expressiveness and suggestive power; these do not depend upon imitation, and are not unfrequently incompatible with it, as the arts of architecture and music have, in all ages, attested.

As, however, nothing is gained by the practice but the chance of applause from thoughtless persons, it is difficult to conceive why what are styled transparencies in glass have been endured so long. The sole explanation that can here be offered is that no artist of real power has devoted himself to the art of glass painting since the mediæval practice went out of use, together with the glorious architecture which it adorned, and of which its productions once formed component parts. Possibly the idea that stained glass was confined to ecclesiastical uses long held possession of the public mind, and when that idea became weak, it was felt that a style, which should be as far as possible removed in character from that of the middle ages, would be best suited to secular uses. That there exists any indissoluble connexion between the Gothic style of architecture and the art of glass painting in this respect, need not here be denied. Decorative, as distinct from pictorial or imitative, art, has ample power for all kinds of employment, and it is but the limited knowledge of its practitioners which would restrict its exercise.

In saying that nothing was gained by transgressing the laws of art in this matter, it was intended to express the fact that all the effect that Art can produce in such situations as those appropriate to stained glass windows, which are intended to be seen at a great distance from the eye, may be as well treated upon decorative as upon pictorial or imitative principles. Forty feet distant, and with the light shining through it, the delicate drawing and modelling of a painted face are thrown away. Such a countenance resolves itself into a generalized, although it may be potentially suggestive representation, and it is to little purpose that the artist seeks to rival the elaborations of a miniature. Imitation must, from this mere physical necessity of employment, be limited, and it cannot be completely efficacious even so far as the distance of the spectator would admit, because, were he nearer, the intensity of the light required to bring out the glories of coloured glass would effectually prevent him from regarding a face except singly. As faces are but parts of figures, the intention of painting would thus, by this simple cause, be defeated, because a coloured window ceases to be a picture in any proper sense, if it can only be seen piecemeal.

To be viewed piecemeal, is not the end of painting on glass; but rather that it should be displayed at a distance from the eye, and thence strike the spectator by the grand display of colour, one of the uses of which is to fill the whole of an interior with gorgeously-hued light, adding to its solemnity or its beauty. At such a distance the figures of saints and warriors, men or angels, become glorified and draw inspiration, not because they truly resemble humanity, but because they do not so resemble, and rather suggest something of their own. If imitation were the end of art, as the advocates for pictorial glass would, by their limiting ideas of the latter, seem to infer, then most of the finest pictures and statues—which aim at the expression of thoughts rather than things, would be comparatively worthless. If expression be denied to be a prerogative of decorative art, then nothing but that which is not an absolutely faithful imitation of nature will be endowed with that quality or with power over the mind. Sculpture, which cannot carry imitation to any extent, would perish on that account. Music is, in its noblest manifestations, the least imitative of arts, and yet of all of them it is the most expressive, the most pathetic and suggestive. There is a quality in colour which is akin to that of melody in music—this is perceived by some more powerfully than others. This quality appears at its highest in the effects of stained glass, a result we should anticipate, from the fact that light—the displayer and father, so to say, of colour—is the immediate agent of display for the productions of that art; in short, stained glass, as an art, has rights and qualities proper to itself. Let us now see which, amongst the works before us, best comply with these

conditions, or are best worthy of admiration on account of the genius of their designers. In selecting these for special comment, it is by no means intended to assert that others do not exist here which are worthy of praise. They are rather such as best illustrate the principles of the art above referred to.

This class is represented by contributions which declare that glass-staining has occupied the genius of men who are artists in the right sense of the word. Such a discovery—it will be a discovery to most men, and most of all to those who are capable of appreciating art in any of its manifestations, but who are not aware of the progress of that branch now in question—is of the highest importance, and promises a result which cannot be appreciated too highly. Public intelligence in matters of art is advancing so rapidly in the right direction that the demand for good examples would be certain to create supply; it is satisfactory, therefore, to observe that the tradesman-like idea of decoration, which has so long exercised itself in glass-staining, has been superseded by one which is truly artistic.

As usual there are grades in this advance; some manifestations are not so valuable as others. In Messrs. O'Connor's great window, representing the "Life of Christ" (1), a series of subjects, there is much to be admired and much to be warmly commended. It is rather due to a lack of subtle knowledge of colour than to ignorance of the peculiar conditions of the art, that this firm has not succeeded in producing a wholly complete and satisfactory example. Had the arrangement of colour in No. 1 been considered as a whole, and the window regarded as complete, it is hardly conceivable that this error would have presented itself. The window is, in most respects, a fine one, and lacks only repose of effect—effect depending in glass-staining, let it not be forgotten, entirely on colouring, or proper management of colours, so that it shall come in the place of *chiaroscuro*, and light and shade in an ordinary picture. A stained-glass window exists only by colour and, consequently, on successful dealing with colour all its value depends. Messrs. Powell, in No. 4, a series of subjects from the "Life of the Virgin," show much purity and elevation in their designs, much feeling in their expressions, and, to a certain extent, admirable breadth of treatment. That breadth and the brilliancy which are attendant on a high note of colouring have, however, been attained by these artists, who are indebted, it is said, to Mr. Holiday for their figure-designs, by a sacrifice of repose and general avoidance of purely negative tints.

Some admirable examples, upon which, above all, felicitations as to the progress of the art are based, are contributed by Messrs. Morris, Marshall, and Faulkener, who send about twenty works, having both sacred and profane subjects, comprising decorations proper to ecclesiastical as well as domestic uses. It is observable that few other exhibitors of worthy works seem to have given attention to the latter class of examples. Let observations on the former come first. Here is a fragment of a "Jesse" window, or genealogy of Christ, which deserves admiration, not only on account of the broad and vigorous manner of its design, but for the beautiful nature of its colouring and apt disposition of masses to the end in view. It is not often that such subtly-graded varieties of hues appear in glass-staining as those in the green garments of Isaac, of Ruth, and of Jacob. A figure of St. Cyprian, comprised, like the last, in the series massed under the No. 3, deserves warm applause for the propriety of its decorative character, as well as the brilliant softness of the golden-yellow of the chasuble the saint wears, and its gorgeously-hued carbuncle-coloured lining. Meagre reds, cold blues, and crude greens appear not at all in Messrs. Morris, Marshall, and Faulkener's works. In "Adam delving" (3), there is a sober tawny-red, of crimson quality, which is delightful.

The figure of David Dancing to the Harp (3) is not less admirable for design than for colouring. See an

example of the wise use of green in the dress he wears. It is especially worthy of note that nowhere in their contributions does this firm of artists appear to indulge in eccentricities, or aim at the revival of old styles. Drawing, with them, is not affected nor grotesque; they do not draw ill because the ancients did so, nor is affectation of expression their forte. In the examples of domestic glass, (16) which are not less worthy of attention than those purposed for ecclesiastical uses, this firm is quite as fortunate as in the latter. The series illustrating the "Legend of Good Women," of Chaucer, is a production of high art; nothing can be truer to the theme both in representation and apt poetic design, than these exquisite compositions. The figures of "Love," leading Queen Alcestis by the hand, of Alcestis herself, and those which represent Queens Cleopatra and Dido, are as various in feeling and in treatment as Chaucer himself meant them to be. The use of yellow stain over pale blue in the dress of Alcestis and the gold crown she wears, are charming phases of colouring, apt to the subject, and commendable to rival manufacturers as well as to artists. The beautiful green-olive hue of Chaucer's dress where he lies sleeping in the arbour, subject of the first work of this series, should be considered in relation with the warm, pure silver tint of the grisaille back-ground and the glowing splendours of the red head-dress he has. Two beautiful heads, drawn with grisaille, and inclosed by splendidly-hued but perfectly harmonious borders, representing Penelope and St. Cecilia, are pleasant examples of modern art, suitable to modern habitations. In this respect the warm and silvery-hued character of the grisaille employed by this firm makes it doubly welcome. The theme of "How St. George was married to the Lady Saba, and the head of the Dragon brought to table on a capacious dish," has humour in it. Sir Tristram performing on the harp to the shepherds, placed above the last, deserves attention. It is not too much to say that modern stained glass has never shown itself so happily employed as in these examples. Fine design and beautiful colour have been united, and made aptly expressive of poetic thought. In the "Legend of Good Women" series, good drawing appears throughout—see that of the flowers in the arbour Chaucer sleeps in, and that of the figures in general, whether they appear in the domestic or the church glass. The broad distinction in the functions of these applications of the art have not escaped the attention of Messrs. Morris, Marshall, and Faulkener. In the latter, colour, potency of tone and aptitude of expression have occupied them; in the former, the abundant use of sweetly-hued grisaille would silver warmly and temper—but not obstruct, the passage of light to the interior of a room intended for constant occupation.

## MINING IN VICTORIA.

By MR. PHILIP A. EAGLE.

[Continued from page 540.]

### CHAPTER V.

#### SILVER.

It is not improbable that silver will shortly be added to the list of products exported from Victoria.

Rich argentiferous ore has been found at St. Arnaud's, Glendhu and Crowlands, in the Wimmera district, and it is believed, by many whose opinions command attention on such a subject, that silver bearing lodes exist in several other districts throughout the territory.

The silver reef at St. Arnaud (New Bendigo) is at the present time attracting the greatest share of attention. The lode in the company's claim on this reef is several feet thick, largely impregnated with the various forms of argentiferous ore which exist in the extraordinary vein-stones running through it. The ore is found in combination with gold in large quantities, and occurs principally

in the form of a chloro-bromide. In some places the reef presents the appearance of having been exposed to fire, and in others as if a stream of water had been percolated through the quartz, and so loosened it that the gold runs out from the matrix. In other places again, the stone is found very hard, though as abundant in gold as the softer portions. The reef was found on the surface, and the deepest shaft in a neighbouring claim is 70 feet only. The workings, however, have revealed two other reefs, one on each side, both yielding silver. From the surface stone, silver as well as gold has been obtained, and as the reef deepens and increases in breadth, the silver increases in proportion. The principal workings are only 30 feet deep, and the mullock as well as the quartz is taken out, the reef at this depth being some 13 or 14 feet in width. The quartz is much much mixed with sandstone and slate, and that which is richest in silver is in a honey-combed state. The casing is a blue slate. Similar appearances, it is believed, are observed in the silver mines of Mexico, and experience as to those mines leads to the conclusion that when the reef is followed down to a considerable depth the silver will be obtained in a metallic form.

The average yield of combined gold and silver was at first from 7 to 8 ounces to the ton; but at a subsequent period as much as 1,104 ounces of amalgam was obtained from 37 tons of stone, and recently ore has been raised which has yielded 1,000 ounces of silver to the ton!

But as the process hitherto adopted for its extraction has been applied principally with a view to obtaining the gold, a considerable portion of both gold and silver is lost in the absence of proper means to secure it—if, indeed, a practical method has as yet been invented to meet the singular form in which the ore is found. The quartz is taken from the mine to the kiln, and there burnt. It is then put through the crushing mill in the usual manner. The product of the amalgam in the retort is a bar of mixed gold and silver, worth about £2 per ounce, which is sent to town, where the one metal is separated from the other, the gold (the fineness of which is 23·3½) fetching the usual price, and the silver being sold for 5s. 6d. per ounce. The usual proportion of metal in the bar is one-third gold and two-thirds silver. So great is the waste, however, that a sample of the tailings from the mill gave ten ounces of silver and five ounces of gold to the ton.

From the amalgam two powders are got, one before and the other after retorting. The first of these is very fine, of a pale-brown colour, and light in weight, but the rudest experiment is sufficient to show that it contains at least twenty-five per cent. of silver. The material obtained from the retort is of a darker colour, somewhat resembling lead. It is much heavier, and probably contains gold and lead as well as silver, but neither of these powders has as yet been properly analysed. They are simply waste products, which are thrown away. In the well-calced stone the chloride is partially converted into round globules of silver, and it is these alone that are caught with the gold in the amalgam and saved. A wide departure from the old mode of manipulation is necessary to enable the whole value of the lode to be realised.

Bismuth has also been lately discovered at St. Arnaud, estimated to be worth £2,000 per ton.

#### ANTIMONY.

The MacIvor antimony mines, situated about nine miles from Heathcote, are a happy illustration of "what may happen to a man in Victoria," where the resources are so extensive and so little developed. It had been known for years past that an antimony reef existed on the station of Moorabie, at one time the property of Mr. J. H. Patterson. It was opened by a man named Doyle, and eight years ago specimens were sent to a mercantile firm of high standing in Melbourne. No gold, however, was seen in the antimony; and as even the latest authorities do not mention that gold has ever before been discovered in combination with antimony, it is probable that no

analyses of the specimens were made. At all events, the market for antimony was known to be limited, and the reef was abandoned, as a speculation that could not be worked with profit. A shepherd on the station, however, afterwards discovered, at some distance from the old workings, a reef of antimony in which gold could be seen, and he offered to point out the spot for a £10 note. The offer was accepted, and the reef now worked by Coster's party was shown to them. They opened the ground, found a reef, within a foot of the surface, four feet broad, and within a few weeks afterwards they had proved the auriferous nature of the antimony. Their next effort was to obtain machinery to reduce the ore, as quartz is crushed, for the sake of the gold in it. The purest antimony, or that in which no gold or quartz was seen, was picked out, and a market was found for it in Melbourne at £5 10s. per ton, on the ground. The quantity thus raised and sold enabled the party to purchase and erect a small high-pressure steam-engine, and a battery of six head of revolving stamps; and thus, at a total expenditure of £4,000 or £5,000, mostly drawn from the mine itself, the owners now find themselves in possession of a large extent of reef, a complete though small crushing plant, and a material so rich in gold, or, if poor in the precious metal, metal so excellent for export, that they have a splendid prospect before them. The mine so far as it has been yet opened up, promises a yield of antimony that may be said to be unlimited. It has been traced from north to south for about three miles and a half, and has been found to vary in width from nine inches to eight feet, the ore increasing in richness in gold as the reef narrows, a peculiarity generally found in the quartz reefs, running north and south—almost true astronomical north—though, curiously enough, the quartz reefs now worked in the same district have not observed the law with the same fidelity, as they lie considerably to west, with spurs running east and west. At the first level, put in at a depth of fifty-five feet, the reef is found of the same breadth; and at the water-level, ninety feet, scarcely any increase is observed. The reef is nearly perpendicular, with a slight underlie to the east. The casing is sandstone, with a seam of greasy clay on the east. On the western side the reef is mixed to some extent with quartz, and here the gold is found most to abound. On the eastern face the antimony is purer, but a sample of the quality, in which no gold could be seen with the unassisted eye, and passed once through a common crushing-mill, has given as much as eighteen pennyweights to the ton. So far as the mine has yet been worked the reef has been found to increase in richness as it is followed downwards. A well-defined lode of copper ore has also been opened at this place, and is being actively worked. Antimony has also been obtained at Templestowe, Upper Yarra, Marybro', and other localities.

#### Fine Arts.

FINE ARTS IN FRANCE.—The annual exhibition of works of art held in Paris closed its doors on the 15th instant, with considerable *éclat*, and the rooms are now almost emptied of their late contents. The lottery, which obtained for some years, was not adopted this year, and no true lover of art regretted the change; but the Emperor and the government have purchased largely, the amount expended from the civil list and the department of the fine arts for pictures and sculpture amounting to half a million of francs, or £20,000. With few exceptions, the purchases consist of landscapes and works of *genre*. In addition to these the Empress, the Prince Napoleon, and the Princess Matilde—herself an exhibiting artist of no mean power—have purchased largely. The little Prince was also inaugurated in the school of connoisseurs, and selected a picture of a drummer earnestly employed in his vocation. The Melun exhibition was to



have been closed on the 15th, but remains open to the end of the month; the catalogue contains more than five hundred numbers, but some of these represent the works of bye-gone artists. As a provincial exhibition, that of M-lun has been a success. The miniature portrait of Charles VIII. of France, generally supposed to have been painted by Raphael when only sixteen years of age, was sold in Paris a few days since, and attracted a large attendance, in spite of the fact of the artistic season being almost at an end. The work in question is scarcely larger than a man's hand, and Baron Rothschild carried it off from rival claimants at the relatively large sum of £108.

### Manufactures.

**BRUSH-MAKING FIBRES.**—There is a great demand just now among brushmakers for some strong supple fibre which may supplement the present supply of piassaba or bass received from Brazil. Two strong fibres, the produce of different palms, have been for some time received from the two ports of Para and Bahia. Of late less care has been given to the selection and preparation of these fibres in South America, and they are much mixed with waste and useless fibre. The piassaba fibre, and the so-called Mexican grass, the produce of the leaves of Agave, have quite revolutionised the brush trade by cheapening the cost and replacing bristles. Owing to the improvements in Russia, arising from attention to bacon and ham curing, bristles are less stout and plentiful than they used to be from the wild hogs. The attention of residents in tropical regions may therefore be drawn with advantage to the demand for new fibres for brush-making, street-sweeping machines, and chimney-cleaning brushes. The midribs of the leaves of many of the palms, a stronger and stouter substance than the kittool and ejoo fibres of Ceylon and the East, are what is wanted, and probably some wiry grasses like the esparto might be experimentalised upon with advantage. They would realize a good price if suitable and to be obtained with regularity and in quantity.

### Commerce.

**THE SCOTCH PIG IRON TRADE.**—The total declared value of the exports for the four months ending 30th April, was £49,892,420, thus exhibiting an increase of £10,434,049 over the corresponding period of last year. The excess of this year over last is equal to thirty millions sterling for the 12 months, and, unless commercial enterprise be interrupted by political events, there is no reason to fear that the result will in any way fall short of this marvellous amount. It will be observed the iron interests maintain their position in due proportion in these statistical results, the increase of iron, exclusive of machinery and hardware, being £536,000, which is more than half of the value of the stock of pig iron at the price of to-day in the storekeepers' stores in Scotland, viz., 330,000 tons. The shipments of pig iron from Scotland are already this year 245,066 tons against 218,382 in the same period of 1863, thus showing an increase of 26,684 tons. The home consumption likewise progresses; the total deliveries continue in marked excess of the production, and it is freely admitted that a considerable inroad has been made on the stock, which is now scarcely equal to 7½ months' consumption. Though the demand, the price, and the prospects, warrant an increase in the production, yet so scarce and dear is the raw material in the iron-making districts of Scotland, that even were the price to advance 10s. or 15s. per ton higher, as in the years 1854, '55, '56, and '57, we question if over two or three additional furnaces could be put in blast and kept in

operation. Meanwhile it is not to be wondered at, that with the Dano-German war, and a severe tightness in the money market, the price should have lately fallen from 70s. to 60s. per ton.

**THE TIN PLATE TRADE.**—The announcement that the import tariff is to be increased 50 per cent. in the Federal States has given a decided check to the demand for tin plates on American account, and during the continuance of this high protective duty the shipments to that country will, it is expected, be greatly reduced. The value of the tin plates exported now exceeds one million sterling, and of this quantity North America has hitherto taken more than half—last year £671,418. Although an important market for tin plates is thus materially restricted, the makers seem to have confidence in the future, for several new works are in progress.

**OPENING OF THE GODAVERY RIVER.**—A parliamentary paper has just been issued, containing a report by R. Turtle, Esq. (officiating chief commissioner of the central provinces of India), on the river Godavery, and the advantages which would result from its being opened throughout for the purposes of navigation. The river has its source in the Suckhein mountains, about seventy miles north-east of Bombay. After crossing Dowlatabad and Golconda from west to east it turns to the south-east, and, receiving the river Bain about ninety miles above the sea, forms into two principal channels at Rajamundry, and these subdivided again form altogether several tide harbours at its different mouths in the Bay of Bengal. Its course is estimated to be about 900 miles long, but only 236 are navigable, and these only during a portion of the year. The obstruction to navigation consists of various rocks, natural barriers and shoals, but these are now in course of removal, and the advantages expected to follow are both great and manifold. The river route will then compete successfully with the railway for the carriage of the weightier articles of merchandise to Bombay for shipment, and the importance of this traffic may be inferred from the fact that the territory through which the river runs produces vast quantities of cotton, teak, oilseed, hemp, sugar, wheat, dyes, clarified butter, hides, wool, and iron. Opening up the river will save the state considerable sums in the conveyance of military stores. It will also enable the natives to import various articles at reduced rates, and this will be a great boon, especially in the important article of salt. The total cost of the contemplated works is about £600,000, but a lesser project is being first proceeded with.

**GUANO.**—There has been rather a marked decline in the exports of guano this year. Thus the total receipts in the first four months of 1864, were 30,057 tons against 59,204 tons in the corresponding period of 1863. The receipts from Peru were 27,908 tons against 48,709 tons in the corresponding period last year. It remains to be seen whether the Spanish forcible possession of the Chinchas islands will interfere with the future supplies of the year.

**SHERRY.**—Messrs. Matthew Clark and Sons, in their circular, say:—"There is no doubt the real actual consumption of Sherry has not only greatly increased, but is daily increasing, and although the zeal of importers to secure large stocks, combined with the desire of shippers to secure the advanced rates offered, has caused operations to be undertaken beyond present requirements; still the actual quantity of old wine has not increased—it has simply been transferred from one place to another. The result of these anticipatory operations has been to cause a glut of stock in England, which has been naturally followed by a somewhat depreciated realizable value; but if the concurrent testimony of all the Cadiz shippers is to have due weight, we cannot but conclude that as consumption gradually absorbs our excess of stock, towards autumn, when probably our dealers will again have to become buyers, prices for really fine old sherry must advance."

## Obituary.

FREDERIC LAWRENCE, fourth son of the late Alderman W. Lawrence, and brother of the present Lord Mayor, was born in London, the 4th of April, 1828, and was educated at the City of London School, which he entered on the day of its opening, February 2nd, 1837. After passing through the junior school, and obtaining many prizes, he took a high position in the senior class, standing on one occasion second for a Scholarship, and on another occasion second for the Senior Mathematical Medal and Prize. He afterwards entered University College, London, where he obtained the first prizes for Geology, for Civil Engineering, and for Architecture as a Science, besides certificates for Chemistry and other branches of knowledge. In the year 1845 he was articled to Messrs. Walker and Burges, under whose direction he assisted in carrying out many important works, amongst which may be mentioned the harbours of Alderney, Dover, and Harwich, and the drainage of the middle level. Whilst at the middle level he directed his attention to the improvement of the sluices, and was allowed to fix, by way of experiment, a small sluice on a novel principle, which was found to act so efficiently that he patented the invention. The large sluices at the Commercial Docks are constructed on this principle; and for this invention he obtained honourable mention at the Great Exhibition of 1862. The invention consists in using the head of water as the motive power for raising and lowering the sluices. He also invented, in conjunction with his brother and Mr. H. Davison, a modification of the rotary engine, which consists in making the cylinder a true epicycloidal curve. In 1852 he entered into partnership with his brother, Mr. Alfred Lawrence, and established the firm of Lawrence Brothers, engineers and iron founders, City Iron Works, where he was enabled to turn to practical account his mathematical and engineering knowledge. He became an Associate of the Institution of Civil Engineers, by many of the members of which he was well known and much esteemed. Some years previously he had joined the Society of Arts, in the proceedings of which he took a deep interest. In 1863 he was elected a member of the Council, at the meetings of which he was a constant attendant, and his practical knowledge and intelligence secured him the high esteem of his colleagues. Mr. Lawrence died, after a few days' illness, at the Mansion House, on 31st May, aged 36, deeply lamented by his numerous friends, who valued him for his great talents, for his persevering energy, but above all, for his high integrity and upright character.

The Nova Scotia papers announce the death of Dr. ABRAHAM GESNER, F.G.S., well known as the author of "The Industrial Resources of Nova Scotia," "Remarks on the Geology and Mineralogy of Nova Scotia," "New Brunswick, with Notes for Emigrants," and as the collector of the greater portion of the museum of natural history in the Mechanics' Institute, St. John, New Brunswick. For many years Dr. Gesner has been engaged in literary and scientific pursuits both in the British American Provinces and in the United States, and just previous to his death he had completed for publication a work on the "Fish and Fisheries of Nova Scotia," which contains much valuable information.

## Notes.

FRENCH ASSOCIATION FOR THE ADVANCEMENT OF ASTRONOMICAL AND METEOROLOGICAL SCIENCE.—This new society, of which a notice has already appeared in the *Journal*, is now completely organised, and in active operation. The following are the names of the directors:—

Messieurs Le Verrier, Michel Chevalier, le Docteur Conneau, Glais-Bizoin, Payen, Vicomte de Vougy, Belgrand, E. Mouchez, Serret, d'Abbadie, Baron, Barral, Muré, Davy, Renou, A. Sanson, Gaillot, et Wolf. The first general meeting of the association took place a short time since, when the chair was occupied by M. Le Verrier, the director of the Imperial Observatory, who was supported by Dr. Conneau and M. Glais-Bizoin as vice-presidents. Just as business was about to commence, a telegraphic message was received from the Imperial Observatory at St. Petersburg, congratulating the new association on its formation and first meeting. M. Le Verrier addressed the associated members on the present desiderata in astronomical science, the proposed establishment of observatories in the principal towns in the south of France, the services rendered to navigation by meteorological telegraphy, and those which it may render to agriculture. M. Renou, the secretary of the Meteorological Society of France, presented a report on the prizes to be offered in meteorology, which are as follows:—A grand prize of the value of 4,000 francs, for the best general memoir, printed or written, and whether in French or any other language, on the general movements of the atmosphere, with the view to the foretelling of tempests; the memoirs to be sent to the secretary of the association at the Imperial Observatory, Paris, before the 31st December, 1865; three prizes of 500 francs each, and five of 300 francs each, for observations made in places little known in that respect, or taken at sea; these to be sent in to the association before the close of the present year. Models and portions of the great telescope, now being constructed for the association by M. Léon Foucault, were exhibited, together with the fine blocks of glass destined to be employed in the formation of the great lens.

RAILWAY EXPENDITURE.—The *Revue des Deux Mondes* contains an article by M. Jules Gaudry on railway travelling, and in a note the author gives the following annual expenditure for material of one of the great lines in France, not specified:—30,000 mètres of cloth, for carriages and clothing of servants; the same quantity of cotton or linen cloth; 110,000lb of varnish, and the same quantity of turpentine; 88,000lb of linseed oil; 433 tons of oil for lighting; 96,000 brooms and brushes; 141,000 lamp glasses; 23,000 files and 77,000 tool handles; 14 tons of small nails; 474,500 pins; and 194,000 washers. Stationery about 700,000 francs (£28,000), including 4,000 stamps. The printing of the tickets alone, which are of two hundred different kinds, occupies seven machines. In addition, we are told that an express train weighs, on an average, from 80 to 100 tons, and that a goods train weighs about 600 tons, and is generally about 350 mètres long. The ordinary trucks when loaded weigh about 15 tons each, and the locomotives from 30 to 50 tons. The speed of the slowest goods trains is set down at eight mètres a second, and that of the express trains at 25 mètres per second. On the *Chemin de Fer de l'Est* the consumption of coal is given at 22lb per kilomètre, or about 700 tons per day—this quantity representing 70 waggon loads—and, with the consumption for the hydraulic service, the stations, and the offices, at 1,000 tons a-day. The consumption of water is calculated at eight times by weight of the coal burned, or 5,000 cubic mètres a-day, and double that quantity is set down for washing the carriages and other miscellaneous purposes. The same railway is said to employ not less than 14,000 persons.

## MEETINGS FOR THE ENSUING WEEK.

MON. ...Entomological, 7.

TUES. ...Asiatic, 3.

Ethnological, 8. 1. Professor Huxley, "On certain Japanese and African Cannibal Skulls." 2. Mr. Vambery, "On the Kirghis and other Tribes of Central Asia."

SAT. ....R. Botanic, 3½.



## PARLIAMENTARY REPORTS.

*Delivered on May 21, and 23, 1864.*Par.  
Numb.*Delivered on 3rd June, 1864.*

200. Weather Forecasts—Papers, &c.  
 268. Weights, Measures, and Coins—Report of International Statistical Congress.  
 128. Bills—Charitable Trusts Fees.  
 129. „ Metropolitan Traffic.  
*Delivered on 4th and 6th June, 1864.*  
 149. Electors—Return.  
 172. Works and Public Buildings—Abstract Accounts.  
 282. Vicarages and Curacies—Returns.  
 314. China (Votes of Credit)—Account.  
 338. Charlton's Charity (Ireland)—Return.  
 340. Landed Estates Court (Ireland)—Returns.  
 346. Army (Enlistments)—Return.  
 290. Sheffield and Bradford Reservoirs—Reports.  
 310. East India (Home Accounts).  
 339. Galway Extension Railway—Return.  
 345. Army (British North America)—Return.  
 131. Bill—Pilotage Order Confirmation.

## SESSION 1863.

431. (A XI.) Poor Rates and Pauperism—Return (A.)

*Delivered on 7th June, 1864.*

333. Police Inquiry (Dundrum)—Letter of Complaint.  
 334. Ecclesiastical Commission (Ireland)—Annual Report and Account.  
 352. Sheep (Ireland)—Return.  
 353. Police (Scotland)—Report.

## Patents.

*From Commissioners of Patents Journal, June 24th.*

## GRANTS OF PROVISIONAL PROTECTION.

- Bevel-wheels, apparatus for cutting the teeth of—1399—J. Dodge.  
 Bobbin-net or twist-lace machines—1402—G. Berry and J. Litchfield.  
 Boots and shoes—1427—J. T. Crick.  
 Braiding machines—1440—F. Tolhausen.  
 Bricks—1446—J. Foxley.  
 Bridges and viaducts, construction of—1467—S. Calley.  
 Carding engines—1455—E. G. Pitton.  
 Carding engines, driving cylinders of—1385—T. Holden.  
 Carding and other machines, feeding—1414—R. A. Brooman.  
 Carriage-wheels, securing tires upon—1380—F. Ashe.  
 Charcoal, preparation of for sugar-refining—1336—J. Paterson.  
 Cloth-finishing, apparatus employed in—1460—W. Martin.  
 Clothes-washing, mangling, and drying apparatus—1397—G. E. Ellis.  
 Copper ores, smelting—1452—P. Spence and J. B. Spence.  
 Cotton, &c., preparation of for spinning—1439—J. Hardacre.  
 Cotton, &c., spinning machinery—1369—R. Threlfall & R. W. Pitfield.  
 Cotton gins—1410—W. Smith and J. G. Fildes.  
 Cotton-presses—1377—J. J. McComb.  
 Cotton seeds, machinery for treating—1480—F. A. E. G. de Massas.  
 Electro-magnetic driving power—1386—W. Clark.  
 Electro-telegraphic apparatus—1458—J. McElroy.  
 Ferromanganese and cupromanganese, manufacture of—1366—O. E. Prieger.  
 Filaments, apparatus for producing—1394—G. Coles, J. A. Jaques, and J. A. Fanshawe.  
 Fire-arms, breech-loading—1389—T. Wilson.  
 Fire-arms, breech-loading—1437—H. W. Hayden.  
 Fire-arms, breech-loading—1465—E. Pope.  
 Fire-lighting fagots—1459—W. E. Gedge.  
 Fuel, artificial—1426—F. H. Warlich.  
 Gas, increasing the illuminating power of—1286—R. A. Brooman.  
 Gas, purifying—1456—W. Sharp.  
 Gas regulators, &c.—1436—M. Henry.  
 Gases, pressure of—1447—C. W. Siemens.  
 Grain separator—1257—A. B. Childs.  
 Granular matters, apparatus for separating—1433—R. Rowat.  
 Hats, &c.—1419—A. A. Larnuth.  
 Heating buildings, boilers used in—1400—B. E. M. Crook.  
 Horse-shoes, machinery for making—1429—A. V. Newton.  
 Hydraulic motive power—1393—W. T. Cheetham.  
 Hydro-carbons, &c., destructive distillation of—1368—W. Cormack.  
 Iron and steel, manufacture of—1434—J. Onions.  
 Iron and steel, welding—1435—W. C. Corsan.  
 Iron ships and ships' sheathing, preservation of from fouling—1486—R. Whiteside.  
 Lanterns—1451—W. Abbott.  
 Leather-cutting machine—1367—P. A. L. de Fontainemoreau.  
 Liquid manure and water carts—1425—T. Richards.  
 Looms, temples for—1428—A. Tweedale.  
 Malt-drying—1308—L. Stevenaax.  
 Mashing apparatus for brewers—1370—W. H. Mellor.

- Mathematical instruments—1454—H. R. de St. Martin.  
 Metals, separating from ores—1401—J. Napier.  
 Oils, refining—1390—F. Tolhausen.  
 Optical instruments—1149—A. Rieder.  
 Ordnance—1398—J. Snider, jun.  
 Petroleum and its products, treating—1387—B. Azulay.  
 Phosphates of ammonia—1408—W. Clark.  
 Photographic pictures, treatment of—1438—N. Sarony.  
 Pianofortes, tuning—1482—R. A. Brooman.  
 Picture-frames, &c., apparatus for manufacture of—1466—T. Agnew.  
 Planing machines—1384—W. E. Newton.  
 Portmanteaus, &c., handles for—1422—J. Parkes.  
 Purses, &c., fastening for—1382—A. H. Williams.  
 Pulley-blocks and sheaves—1474—W. E. Newton.  
 Rags, separating animal substances from—1418—A. T. Weld and J. F. Powell.  
 Railways, engine-pits for—1461—R. A. Brooman.  
 Railway telegraphs, signals, &c.—680—W. A. von Kanig.  
 Refrigerators for marine steam-engines—1376—W. E. Newton.  
 Rock-boring apparatus—1472—W. Tregay.  
 Rotary pumps—1371—E. Myers.  
 Sanitary apparatus—1416—J. Beck.  
 Screws for lifting, &c.—1423—A. Bragg and G. W. Bridgeman.  
 Seed-sowing machines—1381—J. B. Heal.  
 Self-acting mules—1388—W. Houghton and C. Oldroyd.  
 Ships, sheathing—1468—J. Brown, J. T. Way, and T. M. Evans.  
 Ships' propellers—1383—W. Calvert.  
 Signals for coal-mines—1354—T. Eckersley.  
 Steam cultivation—1407—T. Aveling.  
 Steam generators—1463—J. G. Marshall.  
 Steam engines—1160—E. R. Handcock.  
 Steam-engines, pumps, &c., apparatus applicable to—1350—J. M. Stanley and J. Stanley.  
 Steam-engines, apparatus for working the valves of—1478—C. Taylor and J. Dow.  
 Steam and air engines—1445—W. H. James.  
 Steam generators—1424—J. H. Johnson.  
 Steering apparatus—1432—R. Aldridge.  
 Stoves and fireplaces—1469—G. A. Burn.  
 Tubular articles, manufacture of—1378—J. A. Jaques & J. A. Fanshawe.  
 Traction engines—1379—J. W. Lee.  
 Taps or cocks—1396—H. Hill.  
 Tea, &c., apparatus for obtaining extracts from—1406—E. Loysel.  
 Telegraphic printing apparatus—1412—H. A. Bonneville.  
 Tool grinding machine—1411—W. Avery.  
 Weaving ornamental fabrics—1392—J. Smith.  
 Window curtains, arranging and actuating—1415—J. Fraser.  
 Window-blinds, rollers for—1440—S. Tuchet.  
 Wire, annealing—1442—J. P. Williams and T. Robinson.  
 Wool, &c., production of slivers of—1470—B. Fothergill.  
 Umbrellas and parasols—1441—W. Hugo.

## INVENTIONS WITH COMPLETE SPECIFICATIONS FILED.

- Grain, grinding or pulverising—1536—H. A. Bonneville.  
 Millstones, fitting and working spindles in—1481—G. S. Hooker.

## PATENTS SEALED.

- |                                |                      |
|--------------------------------|----------------------|
| 3275. E. Lindner.              | 3309. J. Radley.     |
| 3277. E. Bramall.              | 16. W. Balk.         |
| 3283. T. Bourne.               | 29. J. H. Whitehead. |
| 3286. H. Bayley.               | 107. G. Burt.        |
| 3287. W. Whitaker & W. Tongue. | 133. C. A. Beckman.  |
| 3297. J. Patterson.            | 611. H. N. Penrice.  |
| 3298. W. E. Gedge.             | 757. A. Staples.     |
| 3305. R. Bell.                 | 759. J. Warburton.   |
| 3308. A. Byrnes and H. Byrnes. |                      |

*From Commissioners of Patents Journal, June 28th.*

## PATENTS SEALED.

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|--|---------------------|
| 3307. J. Dale and H. Caro.               | 198. W. E. Newton.  |
| 1. J. Holden.                            | 214. W. E. Newton.  |
| 7. C. Martin.                            | 390. H. W. Wood.    |
| 19. J. Bullough.                         | 391. J. Huntington. |
| 24. G. Speight.                          | 436. W. C. Page.    |
| 28. J. B. Fenby.                         | 524. A. V. Newton.  |
| 31. J. Williams & G. Bedson.             | 853. W. E. Newton.  |
| 44. A. M. Basset and L. N. D. Lamoureux. | 1087. F. C. Hills.  |
| 61. M. B. Westhead.                      | 1088. F. C. Hills.  |

## PATENTS ON WHICH THE STAMP DUTY OF £50 HAS BEEN PAID.

- |                      |  |
|----------------------|--|
| 1648. M. Henry.      | 1628. J. Fowler, jun.                  |
| 1599. T. R. Harding. | 1626. A. Sacre.                        |
| 1653. J. W. Graham.  | 1634. J. R. Tussaud and F. C. Tussaud. |
| 1617. H. B. Barlow.  |  |

## PATENTS ON WHICH THE STAMP DUTY OF £100 HAS BEEN PAID.

- |                        |  |
|------------------------|--|
| 1752. D. Evans.        | 1829. A. Spottiswoode.                     |
| 1754. J. S. Rousselot. | 1783. J. Ingham, E. Ingham, and B. Ingham. |
| 1812. W. E. Newton.    |  |
| 1826. I. C. Cloet.     | 1794. R. Hattersley.                       |
| 1830. W. Pole.         |  |